WYOMING STATE GEOLOGICAL SURVEY

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Madam Chairman Cubin:

Thank you for the opportunity to address you today. My name is Lance Cook, and I am the State Geologist of Wyoming and Executive Director of the Wyoming Geological Survey. I also serve as a member of the Wyoming Oil and Gas Conservation Commission. I am a Registered Professional Geologist in the State of Wyoming. I have a Bachelor of Science degree in Geology from Texas Christian University and a Masters Degree in Geology from the University of New Mexico. Prior to my service as State Geologist, I spent over 20 years working in the petroleum industry for Shell Oil Company and Union Pacific Resources. Many of those years were spent exploring for oil and gas here in Wyoming.

Your topic today, Oil and Gas Development on Public Lands, is most important to our state since the Federal Government is by far the largest land owner in Wyoming. The United States has spent the past 15 years creating the energy problem that we face today. During these past years, oil and gas producers have been enticed by high prices into making substantial capital investments, only to suffer through subsequent spells of low prices which have made their capital investments marginally economic. This pattern has been repeated several times in the 1990's. As a result, we now find ourselves in a difficult situation, one where the current round of high prices seems to be failing to stimulate a large investment in drilling activity. I believe that as a result of these past price oscillations, we now have an oil and gas industry that is risk

averse, and operators are not yet willing to respond to the siren song of a new price spike.

Unfortunately, this risk-averse mentality on the supply side comes at a time when the supply problems creating the recent price spike are profound and serious. It appears that our energy supply problem is now a fundamental problem in the supply and transportation segments of the energy industry, and the crossing curves of supply and demand may have moved into an area where we cannot quickly and easily drill our way out of a supply crisis. There may very well be no quick fix this time. The chart below suggests gas prices may be moving in response to more fundamental forces than a temporary shortage.

The United States consumes roughly 22 TCF of natural gas annually, and that rate of consumption is growing, to a large degree as a result of an orchestrated federal policy that encourages the use of natural gas as the fuel of choice. Already, there is talk of a 30 TCF gas economy in our future. At the same time, our nation's historic production base is depleting due to natural declines in the giant oil and gas fields of Texas, Oklahoma and Louisiana where the low-hanging fruit has already been picked. Additionally, Canadian gas imports are likely to decline due to declining production in the Alberta Basin and increased gas demand from the Canadian oil sands industry.

Due to the severity of the problem, supplying gas at elevated rates to satisfy increasing demand will require multiple solutions. No single solution can deliver us from this problem. Undoubtedly, we need to conserve our hydrocarbon resources. In the short term, we should make our economy more efficient and produce more GDP value with less energy. In the longer term, we need to invest in infrastructure to secure new sources of supply from non-traditional areas, such as the Beaufort Sea, Grand Banks of the North Atlantic and the Alaskan North Slope. We will need to build new ports to receive shipments of liquefied natural gas from other countries that have excess gas for export. However, conservation alone cannot free up the volumes of gas needed to fix this problem. Importation of LNG is part of a long-term solution, and cannot stand alone as our solution. North Slope and Beaufort Sea gas cannot get into our marketplace in less than 10 years. We need to bridge this problem in the short term, and part of that solution can be the development of gas from Lower-48 sources. Wyoming gas can be part of this near-term and mid-term solution while we try to implement the longer-term solutions that are also necessary.

Officially, at the end of 2001, Wyoming's gas reserves were pegged at 18.4 TCF. This is a very conservative number. It does not fully include recoverable coalbed methane resources in the Powder River Basin, which I have estimated to be 25 TCF. It does not include the growing reserve base from the Pinedale Anticline, which may exceed 5 TCF when fully developed. It does not include new information from the Jonah Field, where down-spacing may eventually supply several additional TCF's of gas. Additional gas may come from other coalbed methane projects in the Hanna Basin, the Washakie Basin, the Green River Basin, and others. We have tight gas resources in areas that represent hundreds of TCF's of potential future gas supplies. Wyoming is a gas-rich state, and it is only logical that our country would look to us for near-term and long-term relief.

The largest mineral owner in our gas-rich state is the federal government, which controls roughly 60% of our gas-prospective lands. Can the federal gas resource make a difference in domestic energy supply? In 1996, Wyoming supplied 3.4% of the domestic gas output, and by last year, that number had grown to 7.1%, or more than doubled. We estimate that if our producers could receive a stable gas price of $3.50/mcf, a price that is actually less than today's gas price, Wyoming can add another 50% to our gas deliverability within 5 years. That would put our production rate at roughly 5.8 BCF per day, or 11 percent of total U.S. output. As the largest landowner in the state, we must expect the federal land management agencies to facilitate recovery of the gas resources from federal lands within our state. There are three areas the federal government needs to address in order to make this happen:

First, we need to improve access to the federal lands. The recent EPCA study of access to federal lands understated the difficulties associated with exploration and production activities on federal lands. Several recent NEPA documents illustrate the protracted delays in gaining access. The recent Powder River Basin Oil and Gas EIS required 3 years to prepare, and the first permit has yet to be issued while litigation continues. The Continental Divide/Wamsutter II Natural Gas Project EIS took approximately 3 years to complete, and this delayed the infill drilling of natural gas wells within a known, producing giant gas field. More recently, the Jonah Gas Field is nearing the limits of allowed gas wells under a previous EIS, and infill development drilling in that field will probably come to a standstill while a new EIS is prepared. I suggest that at a time of natural gas supply problems, the federal government needs to streamline NEPA

implementation and find ways to complete these documents in a time frame closer to the 18 months outlined in the regulations. I believe that this can be done without compromise to the environment or at the expense of other natural resources. Three year delays in drilling infill gas wells because of delays in required NEPA analyses do not appear to serve our national interests. Additionally, the fragmentation of federal lands into special administrative classifications creates impediments to exploration, which is the most basic of activities necessary to grow our gas supply. Wilderness study areas that remain in limbo for years or decades are off-limits to exploration, while new Wilderness Study Areas are being created. Research Natural Areas, Areas of Critical Environmental Concern, Roadless Areas, Historic Trails designations and others all provide important protections for valuable resources, but these special designations have eliminated many of the large, contiguous blocks of land necessary for access to conduct exploratory activities and left only a patchwork of available lands. While federal agencies should continue to protect important competing interests where appropriate, federal land managers must be more cognizant of the cumulative negative effects of their decisions on energy supply and the economy and seek alternate means to achieve true multiple use.

Second, we need to improve the federal permitting process. While some federal offices are able to process permits within the time frame of 45 days as required by statute, other offices within the same agency require 6 months or more to issue permits. I have been told by operators that some offices have unofficial “quotas”, and that no individual company can expect to receive more than 25 well permits in a twelve month period. As a result, operators cannot plan multi-million dollar drilling programs with the degree of certainty required for such capital expenditures. While our economy’s gas supply strategy seems to have moved to a “just-in-time inventory” strategy, our federal permitting process seems to have moved to a multi-year planning process. We believe that improved federal permitting processes that are consistent between agencies and offices within the federal agencies will help facilitate efforts to rebalance our gas supply. Consistency, clarity and efficiency should be achievable without sacrificing permitting requirements and appropriate safeguards for other important resources.

Third, during the past few years, as Wyoming’s productive resource base has grown, our gas producers have encountered increasing difficulties in receiving a fair price for their produced gas. The difference between Wyoming gas prices and the national market has at times been greater than $2.00/mcf, and currently is in the neighborhood of $1.00/mcf. Our gas must receive a fair price in the marketplace if adequate capital investment is to occur. We suggest that FERC should review the regulatory scheme surrounding pipeline permitting and financing and move aggressively to facilitate the construction of new take-away capacity from the Rocky Mountain region. Until the critical link of transportation is addressed, additional gas production in the market will depress regional gas prices and discourage necessary investment.

In conclusion, I would encourage you to look to Wyoming for part of the solution to our energy supply problems. We have large resources that the nation can draw upon. However, without facilitation by federal agencies and Congress, our role in solving the nation’s problems will be diminished at the expense of all Americans.